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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,721	11/29/2006	Ewald Schneider	1-17295	1917
1678	7590	01/28/2010	EXAMINER	
MARSHALL & MELHORN, LLC			LEE, DORIS L	
FOUR SEAGATE - EIGHTH FLOOR				
TOLEDO, OH 43604			ART UNIT	PAPER NUMBER
			1796	
			MAIL DATE	DELIVERY MODE
			01/28/2010	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/574,721		SCHNEIDER, EWALD	
	<b>Examiner</b>		<b>Art Unit</b>	
	Doris L. Lee		1796	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 January 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11,13,17,19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11,13,17,19 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01132010</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

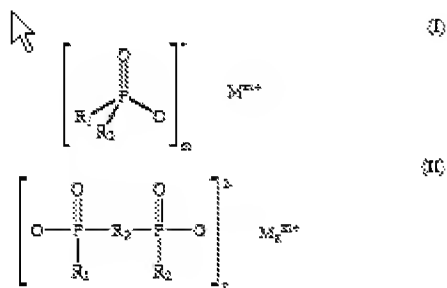
1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 13, 2010 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. **Claims 11, 13, 17 and 19-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Saga (US 2005/0113496)** in view of **Sugino et al (US 5,895,607)** and **Schmid et al (US 4,963,610)**.

**Regarding claim 11**, Saga teaches a flame resistant polyamide resin composition comprising:

- 8 to 89.1 % of a polyamide ([0008]) which can be a mixture ([0015]) of aliphatic polyamides ([0017]) and partly aromatic polyamides ([0017]), the aromatic polyamides are selected from the group consisting of polyamides, the periodical units of which are derived from terephthalic acid and isophthalic acid and adipic acid and also hexamethylene diamine ([0017]).
- 5 to 50 % of a flame retardant comprising a phosphinate of the formula (I) and/or a diphosphinate of formula (II)



- up to 60 wt % of fiber or particle like filler, such as carbon fibers ([0036])
- and additional additives ([0037]) such as pigments and stabilizers.

However, Saga fails to teach the exact amount of the aliphatic polyamide and the exact amount of aromatic polyamides as recited in the instant claim. Saga also fails to teach the amount of the additional additives.

Sugino teaches a flame retardant polyamide composition (Abstract) in which 10 to 90 parts by weight of the partly aromatic polyamide and 90 to 10 parts by weight of aliphatic polyamide (col. 3, lines 59-60).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the amounts of the partly aromatic polyamide and the aliphatic polyamide of Sugino as the polyamide blend of Saga. One would have been motivated to do so in order to receive the expected benefit of improving the impact resistance of thin casings (Sugino, col. 2, lines 40-47).

Schmid teaches a flame resistant polyamide molding composition (Abstract) which contains up to 20% of the usual additives, including pigments and stabilizers (col. 4, lines 50-60).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the amount as taught by Schmid of the additives as taught by Saga.

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One would have been motivated to do so in order to properly color or stabilize the polyamide material. They are combinable because they are concerned with the same field of endeavor, namely polyamide molding compositions.

**Regarding claim 13**, Saga teaches that the aliphatic polyamides can be polyamide 6, polyamide 66, polyamide 46, polyamide 11, or polyamide 12 ([0017]) which meets the claimed limitations as stated in the specification on page 5, first paragraph.

**Regarding claim 17**, Saga teaches that the flame proof polyamide molding compound wherein a phosphinic acid salt of formula (I) an disphosphinc acid salt of formula (II) (see rejection of claim 11 above) wherein M is calcium or aluminum ions ([0010]) is used as a flame proofing agent ([0009]).

**Regarding claim 19**, Saga teaches that the composition elucidated in claim 11 above can be made into molded articles via any known manufacturing method ([0039]).

**Regarding claim 20**, as modified Saga teaches all the components of the composition, therefore, it is therefore inherent that the prior art composition has the desired flame retardancy since such a property is evidently dependent upon the nature of the composition used. Case law holds that a material and its properties are inseparable. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

### ***Response to Arguments***

3. Applicant's arguments filed January 13, 2010 have been fully considered but they are not persuasive for the reasons set forth below.

4. **Applicant's argument:** The teachings of Saga clearly indicate that the phenolic resin is strictly required. The Examiner states that Saga requires the presence of a

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phenolic resin and from paragraph ([0008]) of Saga, the Examiner determines the amount of phenolic resin to be between 0.2 - 54 wt % and that the Examiner equates these resins as being comparable to the compounds found in 11 (e) of the present invention. Phenolic resins are not one of the additives listed for 11 (e).

**Examiner's response:** *It is acknowledged that Saga teaches the incorporation of a phenolic resin, however, it is the examiner's position that the prior art still reads on the claimed invention as the transitional phrase "comprising" is open to other components in the composition. Applicant may argue that the phrase "a) to e) is 100% by weight" restricts the compositions to only components a) to e), however, the Markush group for the additives in ingredient (e) of claim 11 is itself broad enough that the phenolic resin of Saga would be encompassed by the claimed recitation of, for instance, "processing aids". Moreover, since the amount of (e) is 0.05 to 10 wt% and Saga's phenolic resin is computed to be 0.2 to 54 wt%, it is evident that due to the overlap in amount as well as type of additive, in no way does the claim structure exclude Saga from being applicable.*

5. **Applicant's argument:** Sugino teaches the use of red phosphorus which is not appropriate for use in the present invention.

**Examiner's response:** *Sugino teaches that red phosphorus is a preferred flame retardant and not the only flame retardant that can be used. Any known flame retardant can be used (col. 5, line 50). It is also noted that Sugino is a secondary reference, used only to teach the blend of aliphatic and partially aromatic polyamide and therefore the red phosphorus does not play a role in the present rejection set forth above.*

6. **Applicant's argument:** There is no motivation for combining the teachings of Sugino and Saga. The range as taught by Sugino teaches is so broad that one skilled in the art would not derive the particular ratios claimed in the present invention outside of significant experimentation.

**Examiner's response:** *The examiner has set forth the motivation for combining the two references: One would have been motivated to do so in order to receive the expected benefit of improving the impact resistance of thin casings (Sugino, col. 2, lines 40-47). As for the ratios of the ranges, It is well settled that where the prior art describes the components of a claimed compound or compositions in concentrations within or overlapping the claimed concentrations a prima facie case of obviousness is established. See In re Harris, 409 F.3d 1339, 1343, 74 USPQ2d 1951, 1953 (Fed. Cir. 2005); In re Peterson, 315 F.3d 1325, 1329, 65 USPQ 2d 1379, 1382 (Fed. Cir. 1997); In re Woodruff, 919 F.2d 1575, 1578 16 USPQ2d 1934, 1936-37 (CCPA 1990); In re Malagari, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974).*

7. **Applicant's argument:** It is noted that Schmid requires 40-70 wt % magnesium hydroxide and this significant proportion is unrelated the components of the present invention. One skilled in the art at the time of the invention would not look to Schmid relative to the additives as the base compositions are so different. The primary reference does not disclose the additives claimed herein and the additives described therein are not comparable.

**Examiner's response:** *It is noted that the primary reference teaches the required pigments or stabilizers (Saga, [0037]) and Schmid also teaches amounts of these*

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*additives (Schmid, col. 4, lines 50-60). The examiner maintains that they are combinable because they are both concerned with the same field of endeavor, namely polyamide molding compositions.*

### **Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Doris L. Lee whose telephone number is (571)270-3872. The examiner can normally be reached on Monday - Thursday 7:30 am to 5 pm and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571)272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Doris L Lee/

Examiner, Art Unit 1796

/Vasu Jagannathan/

Supervisory Patent Examiner, Art Unit 1796